November 3, 2011

Filed Via FCC Electronic Comment Filing System (ECFS)

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Yuba County Water Agency Comments on Pyramid Communications, Inc.'s Petition for Rulemaking To Facilitate the Use of Vehicular Repeater Units by Public Safety Licensees in the VHF Band (DA 11-1717; RM-11635)

Dear Ms. Dortch:

This letter responds to the FCC Public Safety and Homeland Security Bureau request for comments on the above-referenced petition for rulemaking.

Summary of Comments

In June 2010, Pyramid Communications, Inc. filed a petition with the FCC requesting that it consider rule changes to facilitate the use of vehicular repeater units through expanded use of the 173 MHz VHF band. Yuba County Water Agency opposes the petition for rulemaking because the expanded use of the 173 MHz band could significantly and adversely affect the Agency's transmission of data through its telemetry system for flood management purposes and the use of that band by police and firefighting agencies could be impacted by the Agency's transmission of data on the same band.

Introduction and Background

Yuba County Water Agency (Agency) is a local government agency headquartered in Marysville, California. The Agency owns and operates four dams with a storage capacity of roughly one-million acre-feet of water and associated powerhouses. The primary functions of the Agency are conservation and storage of water, delivery of wholesale water to member districts, flood control, hydroelectric power development, fisheries enhancement and recreation.

After a devastating flood in 1997, the Agency evaluated improved flood protection for Yuba County and the surrounding communities. Following that evaluation, the Agency concluded that one of the most cost-effective flood management improvement measures would be to implement forecast-coordinated operations of Lake Oroville and New Bullards Bar Reservoir (the "F-CO program") in the Feather and Yuba River watersheds. The goal of the F-CO program is to improve flood protection and better protect life and property for

communities along and downstream of the Yuba and Feather Rivers. The objective is to reduce peak flood flows through better river flow forecasting and improved coordination between Lake Oroville and New Bullards Bar Reservoir releases and flood operations.

The key to improving flood protection through F-CO is the use of state-of-the-art technology for flood forecasting and improved coordination of local, state and federal operations during major flood and high-water events. The F-CO program allows water managers to operate the reservoirs in advance of and during major flood events with an improved level of forecast certainty, which reduces peak flows of the rivers and the risk of exceeding river channel capacity. The F-CO program also improves notification processes and increases flood warning times to emergency operation managers, state and local offices of emergency services, levee districts and the downstream areas in danger of major flooding.

Effective F-CO data collection requires real-time hydrologic data obtained through the operation of remote gauging stations to measure river and stream flows. The Agency monitors 29 flows and levels at gauging stations reported through 20 radios throughout the Yuba River Basin. These gauging station radios provide real-time telemetry capabilities that use the 173.3375 MHz frequency. The radios transmit the data to a repeater station on Oregon Peak (Yuba County, 3,400 feet), which then transmits the data to an Agency operations facility. The Oregon Peak site provides a very effective repeater station because of its location, height and ability to receive and transmit data over long distances.

The Agency telemetry system also transmits data to the California Data Exchange Center (part of the California Department of Water Resources). CDEC maintains and operates an extensive hydrologic data collection network, including automatic snow reporting gauges for the California snow surveys program and precipitation and river stage sensors for the flood forecasting program.

There Could be Conflicts with Shared Use of the 173 MHz Telemetry Band for Agency Telemetry and Vehicular Repeater Units

With the Pyramid proposal, the Agency gauging station radios and repeaters and police and fire vehicular repeater units (VRUs) would transmit and receive telemetry and voice transmissions on the same 173 MHz telemetry band. Even though these units transmit at low power, we have demonstrated that the data signals are able to travel over a significant distance.

We have evaluated whether the shared use of the frequency would be compatible and we have determined that it would not be. There is a high likelihood that police and fire use of the VRUs would interfere with the Agency telemetry system, especially if the VRU is operating near one of the Agency gauging stations or in line of sight of the Oregon Peak repeater. The additional radio "noise" on the frequency could delay data transmission by the Agency's equipment and the "noise" could corrupt the Agency's data. The Agency's radios and repeaters have not been designed to work with voice transmissions from other radios on the same frequency.

Furthermore, this conflict would flow in the other direction as well. When the Agency gauging station radios and repeaters transmit large volumes of data (which they are programmed to do for approximately 10 minutes every 15 minutes, 24 hours a day, 7 days a week), that data could be received by a police or fire VRU in the area operating on the same frequency. The VRU would not distinguish between the receipt of voice data from a police or fire walkie-talkie and the receipt of telemetry data from an Agency radio on the same frequency. The Agency data being received by the VRU could impede critical radio police or fire communications.

Removing Bandwidth Limitations in the 173 MHz Telemetry Band Would Impact the Agency Telemetry System

The Agency telemetry radios and repeaters operate at a narrow bandwidth and require a guard band. The maximum bandwidth may not exceed 6 kHz. Allowing that deviation to rise to 11.25 or 20 kHz would be a significant problem for the operation of the Agency telemetry radios and repeaters. If a police or fire VRU operated within this broader bandwidth near an Agency gauging station or repeater, then the Agency's narrow band telemetry receivers could experience severe distortion and not be able to read telemetry data being transmitted from gauging station radios.

Several years ago, the FCC mandated use of narrow bandwidths to aid the development and operation of telemetry systems. The Agency and many others acted in reliance on the FCC change and replaced radio equipment with the narrow band radios that operate within the narrow 6 kHz bandwidth. The telemetry systems are working well. Increasing the maximum bandwidth would be a major step backwards.

Conclusion

We urge you not to take any action that could impact the Agency's flood protection mission. More than 10 major floods have occurred in Yuba County during the 20th century. The floods of 1986 inundated nearly 10,700 acres, flooded more than 3,000 homes and 150 businesses, and caused three deaths and $95 million in damages. In the 1997 flood, three more people died, 100,000 people were evacuated, and approximately 16,000 acres were inundated. We have responded with a sophisticated telemetry system to aid in the flood fight.

The ability to send real-time data through the Agency telemetry system is particularly critical in emergency or potential emergency situations involving major storms and floods or flood risk. The Pyramid Communications proposal is incompatible with the Agency's pre-existing and ongoing use of the 173 MHz telemetry band. Expanded and shared use of that band could adversely affect the Agency's emergency and flood management responsibilities. Additionally, the Agency's shared use of the 173MHz telemetry band could adversely affect the use of police and fire VRUs operating in the area on the same frequency. The Agency urges the FCC to reject the petition and not initiate the requested rulemaking.

Thank you for your consideration of our comments. If you have any questions, please contact me or, if they are of a technical nature, you may contact our Power Systems Manager, Mike Kline at (530) 692-3485.

Sincerely,

CURT AIKENS
General Manager